

AMENDMENTS TO THE CLAIMS

Please cancel Claims 90 through 182 and 210 through 222 without prejudice to or disclaimer of the subject matter recited therein, amend Claims 183, 191, and 199 and add Claims 223 through 249 to read as follows:

1 through 182 (Cancelled).

183. (Currently Amended) An apparatus for deicing comprising:

a vehicle;

a boom having an end mounted on the vehicle and a free end;

a compressor supported at the base of ~~or connected to~~ the boom and having

an air outlet; and

a deicer air jet nozzle located at the boom and operatively coupled to the air outlet of the compressor for receiving air and discharging the air for a deicer application.

184. (Previously added) An apparatus according to claim 183, and further comprising a hydraulic motor having an output connected to said compressor for driving said compressor, and a hydraulic pump mounted on the vehicle and hydraulic feed lines extending from said hydraulic pump to said hydraulic motor on said boom for supplying hydraulic fluid under pressure to said hydraulic motor.

185. (Previously added) An apparatus according to claim 184, including a vehicle engine supported by said vehicle for supplying power to said hydraulic pump.

186. (Previously added) An apparatus according to claim 184, and further comprising gear driving operatively connected between said compressor and said hydraulic motor for stepping up the revolutions per minute of said compressor relative to the output of said hydraulic motor.

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187. (Previously added) An apparatus according to claim 186, wherein the step up gear ratio is 12.27:1.

188. (Previously added) An apparatus according to claim 183, wherein said deicer air jet nozzle defines an axisymmetric contour having a converging portion.

189. (Previously added) An apparatus according to claim 183, and further comprising a fluid nozzle mounted on said deicer air jet nozzle, a source of deicing fluid, a supply tube interconnecting said source of deicing fluid and fluid nozzle, and a fluid pump for pumping deicing fluid from the source of deicing fluid and through the supply tube and fluid nozzle.

190. (Previously added) An apparatus according to claim 183, wherein said pump forces air through said deicer air jet nozzle at about 100 pounds per minute.

41 191. (Currently Amended) An apparatus for deicing comprising:
a vehicle;
a boom having an end mounted on the vehicle and a free end;
a compressor unit supported at the base of ~~or connected to~~ the boom, said compressor unit comprising:
a compressor having an air outlet; and
a deicer air jet nozzle located at the free end of the boom and operatively coupled to the air outlet of the compressor for receiving air and discharging the air for a deicer application.

192. (Previously added) An apparatus according to claim 191, wherein said compressor forces air through said deicer air jet nozzle at about 100 pounds per minute.

193. (Previously added) An apparatus according to claim 191, and further comprising a motor having an output, wherein said motor comprises a hydraulic motor, and further including a hydraulic pump and hydraulic feed lines extending from said hydraulic pump to said hydraulic motor.

194. (Previously added) An apparatus according to claim 193, wherein said hydraulic pump is mounted on said vehicle, and said hydraulic feed lines extend from said hydraulic pump to said hydraulic motor on said boom for supplying hydraulic fluid under pressure to said hydraulic motor.

195. (Previously added) An apparatus according to claim 194, said hydraulic feed lines extending from said hydraulic pump to said hydraulic motor on said boom for supplying hydraulic fluid under pressure to said hydraulic pump.

196. (Previously added) An apparatus according to claim 195, and further comprising a vehicle engine mounted on said vehicle for supplying power to said hydraulic pump.

197. (Previously added) An apparatus according to claim 191, wherein said deicer air jet nozzle defines an axisymmetric contour having a converging portion.

198. (Previously added) An apparatus according to claim 191, and further comprising a fluid nozzle mounted on said deicer air jet nozzle, a source of deicing fluid, a supply tube interconnecting said source of deicing fluid and fluid nozzle, and a fluid pump for pumping deicing fluid from the source of deicing fluid and through the supply tube and fluid nozzle.

199. (Currently Amended) A method for deicing aircraft comprising the steps of:

compressing air within a compressor supported at the base of or connected to a vehicle boom; and

discharging the air from a deicer air jet nozzle located at the end of the vehicle boom such that air is forced outward from the deicer air jet nozzle.

41 200. (Previously Added) A method according to claim 199, wherein the air is discharged from the deicer air jet nozzle at about 12 pounds per square inch.

201. (Previously Added) A method according to claim 199, wherein the air is discharged through air jet nozzle that defines an axisymmetric contour having a converging portion.

202. (Previously Added) A method according to claim 199, and further comprising the step of hydraulically driving a motor coupled to the compressor, wherein the motor comprises a hydraulic motor.

203. (Previously Added) A method according to claim 202, and further comprising the step of driving the hydraulic motor from a hydraulic pump located on a vehicle.

204. (Previously Added) A method according to claim 203, and further comprising the step of operating the hydraulic pump from the engine used for driving the vehicle.

205. (Previously Added) A method according to claim 202, and further comprising the step of stepping up the revolutions per minute of the compressor relative to the output of the motor by gear driving coupled between the centrifugal compressor and the motor.

206. (Previously Added) A method according to claim 199, and further comprising the step of discharging the air from the nozzle at above ambient temperature.

207. (Previously Added) An apparatus according to claim 183, wherein said deicer air jet nozzle is located at the free end of the boom.

208. (Previously Added) An apparatus according to claim 191, wherein said deicer air jet nozzle is mounted to the free end of the boom.

209. (Previously Added) A method according to claim 199, and further comprising the step of forcing air outward from the deicer air jet nozzle at about 100 pounds per minute.

210 through 222 (Cancelled).

--223. (New) An apparatus for deicing comprising:

a vehicle;

a boom having an end mounted on the vehicle and a free end;

a compressor connected to the boom and having an air outlet; and

a deicer air jet nozzle located at the boom and operatively coupled to the air outlet of the compressor for receiving air and discharging the air for a deicer application.

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224. (New) An apparatus according to claim 223, and further comprising a hydraulic motor having an output connected to said compressor for driving said

compressor, and a hydraulic pump mounted on the vehicle and hydraulic feed lines extending from said hydraulic pump to said hydraulic motor on said boom for supplying hydraulic fluid under pressure to said hydraulic motor.

225. (New) An apparatus according to claim 224, including a vehicle engine supported by said vehicle for supplying power to said hydraulic pump.

226. (New) An apparatus according to claim 224, and further comprising gear driving operatively connected between said compressor and said hydraulic motor for

stepping up the revolutions per minute of said compressor relative to the output of said hydraulic motor.

227. (New) An apparatus according to claim 226, wherein the step up gear ratio is 12.27:1.

71 228. (New) An apparatus according to claim 223, wherein said deicer air jet nozzle defines an axisymmetric contour having a converging portion.

229. (New) An apparatus according to claim 223, and further comprising a fluid nozzle mounted on said deicer air jet nozzle, a source of deicing fluid, a supply tube interconnecting said source of deicing fluid and fluid nozzle, and a fluid pump for pumping deicing fluid from the source of deicing fluid and through the supply tube and fluid nozzle.

230. (New) An apparatus according to claim 223, wherein said pump forces air through said deicer air jet nozzle at about 100 pounds per minute.

231. (New) An apparatus for deicing comprising:

a vehicle;

a boom having an end mounted on the vehicle and a free end;

a compressor unit connected to the boom, said compressor unit comprising:

a compressor having an air outlet; and

a deicer air jet nozzle located at the free end of the boom and operatively coupled to the air outlet of the compressor for receiving air and discharging the air for a deicer application.

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232. (New) An apparatus according to claim 231, wherein said compressor

forces air through said deicer air jet nozzle at about 100 pounds per minute.

233. (New) An apparatus according to claim 231, and further comprising a

motor having an output, wherein said motor comprises a hydraulic motor, and further including a hydraulic pump and hydraulic feed lines extending from said hydraulic pump to said hydraulic motor.

234. (New) An apparatus according to claim 233, wherein said hydraulic

pump is mounted on said vehicle, and said hydraulic feed lines extend from said hydraulic pump to said hydraulic motor on said boom for supplying hydraulic fluid under pressure to said hydraulic motor.

235. (New) An apparatus according to claim 234, said hydraulic feed lines extending from said hydraulic pump to said hydraulic motor on said boom for supplying hydraulic fluid under pressure to said hydraulic pump.

236. (New) An apparatus according to claim 235, and further comprising a vehicle engine mounted on said vehicle for supplying power to said hydraulic pump.


41 237. (New) An apparatus according to claim 231, wherein said deicer air jet nozzle defines an axisymmetric contour having a converging portion.

238. (New) An apparatus according to claim 231, and further comprising a fluid nozzle mounted on said deicer air jet nozzle, a source of deicing fluid, a supply tube interconnecting said source of deicing fluid and fluid nozzle, and a fluid pump for pumping deicing fluid from the source of deicing fluid and through the supply tube and fluid nozzle.

239. (New) A method for deicing aircraft comprising the steps of:
compressing air within a compressor connected to a vehicle boom; and
discharging the air from a deicer air jet nozzle located at the end of the vehicle boom such that air is forced outward from the deicer air jet nozzle.

240. (New) A method according to claim 239, wherein the air is discharged from the deicer air jet nozzle at about 12 pounds per square inch.

241. (New) A method according to claim 239, wherein the air is discharged through air jet nozzle that defines an axisymmetric contour having a converging portion.



242. (New) A method according to claim 239, and further comprising the step of hydraulically driving a motor coupled to the compressor, wherein the motor comprises a hydraulic motor.

243. (New) A method according to claim 242, and further comprising the step of driving the hydraulic motor from a hydraulic pump located on a vehicle.

244. (New) A method according to claim 243, and further comprising the step of operating the hydraulic pump from the engine used for driving the vehicle.

245. (New) A method according to claim 242, and further comprising the step of stepping up the revolutions per minute of the compressor relative to the output of the motor by gear driving coupled between the centrifugal compressor and the motor.

246. (New) A method according to claim 239, and further comprising the step of discharging the air from the nozzle at above ambient temperature.

247. (New) An apparatus according to claim 223, wherein said deicer air jet nozzle is located at the free end of the boom.

248. (New) An apparatus according to claim 231, wherein said deicer air jet nozzle is mounted to the free end of the boom.

249. (New) A method according to claim 239, and further comprising the step of forcing air outward from the deicer air jet nozzle at about 100 pounds per minute.--
